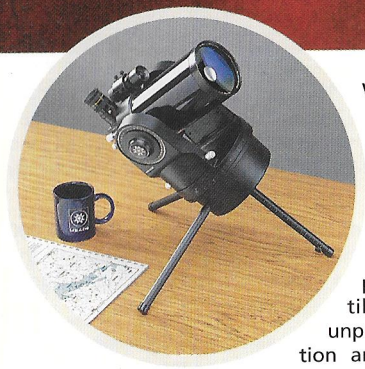
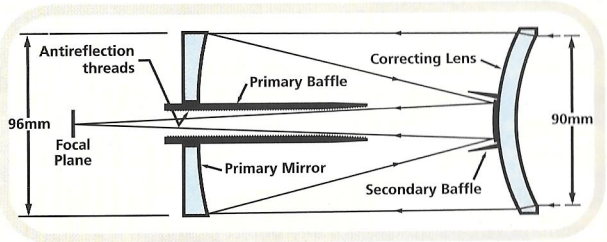
The Meade® ETX® Revolution



When the original ETX® telescope, the ETX-90RA, was introduced in 1996, it quickly created a revolution in amateur astronomy. Here for the first time was a stunningly beautiful, ultra-portable, and highly versatile telescope system of unprecedented optical resolution and performance. Within one year of its introduction the ETX became the largest-selling modern telescope in the world.

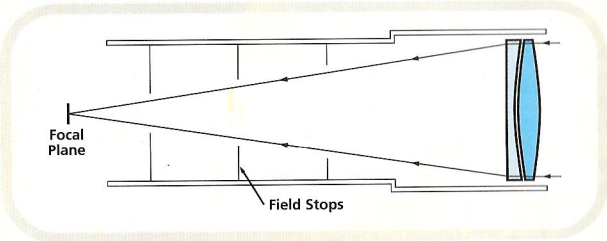
Meade ETX® models build on the original ETX concept to create the most advanced electronically-controlled telescopes ever produced in their price range — without sacrificing any of the user-friendly features that started the ETX revolution.

THE MEADE MAKSUTOV-CASSEGRAIN OPTICAL SYSTEM



The Maksutov-Cassegrain design *(shown: ETX-90)* of the ETX-90EC, ETX-105EC, and ETX-125EC yields the finest, diffraction-limited optical imaging ever obtained in a mirror-lens instrument of its aperture. Light enters from the right through a multi-coated meniscus lens, proceeds to an f/2.2 concave primary mirror, and then to a convex secondary mirror that multiplies effective focal length by a factor of 6.3. The secondary mirror light baffle, in combination with the antireflection threads inside the primary mirror baffle, eliminate stray light, ensuring extremely high-contrast images at the focal plane.

THE MEADE ETX-70AT REFRACTIVE OPTICAL SYSTEM



In the optical design of the ETX 70mm model, light enters from the right through a 2-element, air-spaced objective lens and travels to a focus at the focal plane. Field stops internal to the optical tube prevent off-axis light from reaching the focal plane, thereby enhancing image contrast.

MEADE®

PROFESSIONAL-QUALITY OPTICS FOR THE SERIOUS OBSERVER

In addition to the Meade ETX Astro telescopes described in this Bulletin, look for uncompromising quality in these Meade optical instruments as well:

Telescopes — Meade Instruments is the world's largest manufacturer of telescopes for the amateur astronomer, with more than 40 different models of refracting, reflecting, and catadioptric designs. The 48-page Meade Telescope Catalog presents the full range of Meade astronomical telescopes and related accessories. Write, call, or fax for your free copy.

Binoculars and Spotting Scopes — Over two dozen Meade binocular models are available to suit any budget, personal preference, or intended application. Meade Bulletin 140 describes in detail how to go about selecting the right binocular for you. Write, call, or fax for your free copy.

Microscopes — Meade microscopes are manufactured to the same high optical and mechanical standards as Meade astronomical telescopes. The complete line of Meade microscopes is presented in Meade Bulletin 160. Write, call, or fax for your free copy.

BC&F ASTRO ENGINEERING:

Visit our web site at **www.astro-engineering.com** for our full range of ETX compatible accessories, exclusively manufactured in the UK by BC&F Astro Engineering.

Authorised Dealer

BC&F

Broadhurst Clarkson & Fuller Ltd., Unit 6, The Tunbridge Wells Trade Park, Longfield Road,Tunbridge Wells, Kent TN2 3QF
Tel: 01892 616131 Fax: 01892 616130

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BC&F ETX-03

BULLETIN ETX®

ETX-70AT
ETX-90EC
ETX-105EC
ETX-125EC

Astro Telescopes and Optional Accessories

MEADE

New Meade® ETX-105EC Astro Telescope

A superb instrument for the more advanced observer, the 105mm clear aperture of the ETX-105EC offers 225% the light grasp of the ETX-70AT, and 136% that of the ETX-90EC.

- **Pushbutton Operation.** Control all motions of the telescope with the handheld 4-speed Meade Electronic Controller.
- **Ultra-High-Resolution Imaging.** Observe a significantly heightened level of detail and resolution in all ranges of astronomical study.
- **Easy Setup and Use.** Ready to use just minutes after opening the box, the ETX-105EC is simple to operate.
- **Compact and Portable.**
- **Photo-Ready Imaging.** Connect your 35mm camera body to the ETX-105EC for terrestrial or astrophotography. Requires the optional Meade #64 T-Adapter and T-Mount for your camera.
- **Autostar Compatible.**

SPECIFICATIONS

SPECIFICATIONS: ETX-105EC Astro Telescope — Includes Maksutov-Cassegrain optical tube assembly (D = 105mm, F = 1470mm, f/14) with EMC multi-coatings; internal flip-mirror system for either straight-through or 90° observing position; fork mount with electric slow-motion controls, setting circles and locks on both axes; electronic control panel; 4-speed (8x, 32x. 0.75°/sec, 5°/sec) dual-axis motor drive system with electronic hand controller; internal battery compartment accepting eight (user-supplied) AA-size batteries; 8 x 25 right-angle viewfinder; Series 4000 Super Plössl 26mm (57X) eyepiece; operating instructions.

Meade® ETX-125EC Astro Telescope

With twice the light-collecting area of the ETX-90EC, the ETX-125EC permits the fullest possible range of astronomical study, while still retaining compact, portable dimensions.

- **Pushbutton Operation.** Control all motions of the telescope with the handheld 4-speed Meade Electronic Controller.
- **Ultra-High-Resolution Imaging.** The ETX-125EC's larger aperture enables the observation of celestial phenomena, such as nebulae and star clusters, in much wider extension.
- **Easy Setup and Use.**
- **Compact and Portable.** Despite possessing the largest aperture of the ETX family, the ETX-125EC is still extremely compact.
- **Photo-Ready Imaging.** Connect your 35mm camera body to the ETX-125EC for terrestrial or astrophotography. Requires the optional Meade #64 T-Adapter and T-Mount for your camera.
- **Autostar Compatible.**

SPECIFICATIONS

SPECIFICATIONS: ETX-125EC Astro Telescope — Includes Maksutov-Cassegrain optical tube assembly (D = 127mm, F = 1900mm, f/15) with EMC multi-coatings; internal flip-mirror system for either straight-through or 90° observing position; fork mount with electric slow-motion controls, setting circles and locks on both axes; electronic control panel; 4-speed (8x, 32x. 0.75°/sec, 5°/sec) dual-axis motor drive system with electronic hand controller; internal battery compartment accepting eight (user-supplied) AA-size batteries; 8 x 25 right-angle viewfinder; Series 4000 Super Plössl 26mm (73X) eyepiece; operating instructions.

Meade® #497 Autostar® Computer Controller

Plug the handheld Meade #497 Autostar Computer Controller into the control panel of the ETX-90EC, ETX-105EC, or ETX-125EC in place of the standard-equipment Electronic Controller, and you're ready to locate virtually any astronomical object in the sky — *automatically!*

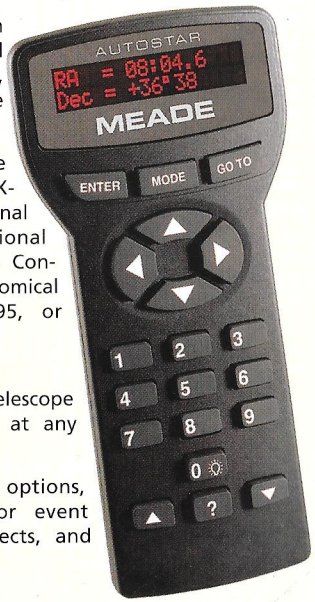
Automatic GO TO Function: Select any of more than 32,000 celestial objects in the Autostar database, press GO TO, and the telescope automatically moves to the object at 5°/second on both axes and places it in the telescopic field:

- ***Deep-Space Objects*** *— Discover hundreds of galaxies, diffuse nebulae, planetary nebulae, and star clusters — any object from the IC, NGC and Caldwell catalogs, as well as all 110 Messier objects; or locate over 900 stars including double stars, variable stars and SAO stars.*
- ***Moon and Planets*** *— Let Autostar find Saturn and its rings, Jupiter and its four principal satellites, or any of the major planets.*
- ***Asteroids, Comets and Earth-Orbiting Satellites*** *— Choose from a selection of the brightest known asteroids, periodic comets, or any of 50 artificial satellites orbiting Earth, including the International Space Station.*
- ***Constellations*** *— Locate and learn about the 88 constellations.*
- ***User-Defined Objects*** *— Record a terrestrial or astronomical object into the Autostar database for ongoing study or exploration.*

Automatic GO TO function to *any* object of known R.A. and Dec.

Digital readouts of telescope position (continuously in R.A. and Dec.), menu options, glossary, and utility functions.

Precise sidereal-rate tracking in either altazimuth or equatorial modes. For altazimuth tracking, set the telescope on its drive base and perform a quick alignment.



RS-232 Serial Port: Operate the ETX-90EC, ETX-105EC, or ETX-125EC telescope through a personal computer (PC) using the optional Meade Astro Software / #505 Connector Cable Kit or other astronomical program (PC Windows 3.X, 95, or higher).

9-Speed Dual-Axis Operation: Pushbutton operation of the telescope on both axes, simultaneously, at any speed from 2x sidereal to 5°/sec.

Plus over 20 other menu options, including guided tours, major event menus, user-defined land objects, and more.

Meade® ETX-70, ETX-90, ETX-105, and ETX-125 Telescopes

There is an ETX telescope that is perfect for your observing requirements.

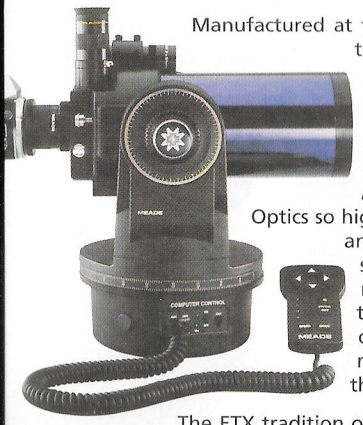
Compact, ultraportable dimensions coupled with industry-leading optics and quality have made the Meade ETX series the largest-selling modern telescopes in the world. There is an ETX model perfect for every observing situation.

Fork Mount with Dual-Axis Drive System. All ETX models include high torque DC motors on both telescope axes. The ETX-70AT offers automatic GO TO capability from the standard-equipment #494 Autostar controller, while the ETX-90EC, ETX-105EC, and ETX-125EC permit electronic operation from the standard-equipment handheld Electronic Controller, or from the optional #497 Autostar.

The Electronic Controller of the ETX-90EC, ETX-105EC, and ETX-125EC can be used at any of four dual-axis drive speeds:

- Very *Slow* - 8x for image centering at high power.
- *Slow* - 32x for image centering at lower powers, or for pushbutton tracking in the altazimuth mode.
- *Moderate* - 0.75° per second for image centering in the viewfinder or for terrestrial tracking.
- *Fast* - 5° per second for fast slewing across the sky.

Cordless Field Operation: Operate the telescope's dual-axis drive system for more than 40 hours from (user-supplied) AA-size batteries; or use the optional Meade #541 AC adapter or #607 Power Cord for field applications of the telescope.



Manufactured at the Meade facility in California, the optics of the ETX-90EC, ETX-105EC, and ETX-125EC *are warranted to equal or exceed the performance and resolution of any Maksutov-Cassegrain optics of similar aperture ever manufactured at any price.* Optics so high in contrast, image brightness, and resolution that these telescopes consistently outperform many instruments of larger apertures. Meade EMC super-multi-coatings on all optical surfaces maximise light transmission through the optical system.

The ETX tradition of optical excellence is carried on with the ETX-70AT which utilises an exclusive refractive design with a multi-coated, air-spaced achromatic objective lens to bring the full range of celestial images to your eye with an astonishing level of clarity and resolution.

All ETX models utilise a flip-mirror system. Flip the internal, optical-flat mirror "up" for observing from the standard 90° position; flip the mirror "down" for terrestrial observing with an optional 45° Erecting Prism or for photography with an optional T-Adapter.

Meade® ETX-70AT Astro Telescope with Autostar

Locate and explore planets, asteroids, comets, nebulae, star clusters, galaxies, and *hundreds* of other deep-space objects, all at the push of a button. For the novice astronomer or casual observer, the ETX-70AT with *standard-equipment* Autostar hand controller opens up the skies to an amazing level of detail.

Terrestrial Observing: An excellent land-view instrument, observers quickly appreciate the advantages afforded by the Autostar hand controller to track land objects.

Optical System: Includes a multi-coated, air-spaced achromatic objective lens of exclusive Meade design, manufactured of Grade-A crown and flint optical glass components.

Ultraportable and Simple to Use: Easy to carry to any location, the ETX-70AT brings the excitement of astronomy to users of any age. Do a quick, easy 60-second alignment of the telescope's computer to the sky, and start observing.

Autostar Hand Controller: The #494 Autostar controller *automatically locates over 1400 celestial objects:* enter the object you wish to observe on to the Autostar display, press GO TO, and the telescope moves automatically to place the object in the field of view!

SPECIFICATIONS

SPECIFICATIONS: ETX-70AT Astro Telescope — Includes achromatic refractor optical tube assembly (D = 70mm, F = 350mm, f/5) with multi-layer optical coatings; internal flip-mirror system for either straight-through or 90° observing position; fork mount with electric slow-motion controls, setting circles, and locks on both axes; electronic control panel; 9-speed (2x sidereal through 4.5°/sec.) dual-axis motor drive system with #494 Autostar computer controller; sidereal-rate tracking; internal battery compartment accepting six (user-supplied) AA-size batteries; MA9mm (39X) and MA25mm (14X) multi-coated eyepieces; operating instructions.

Meade® ETX-90EC Astro Telescope

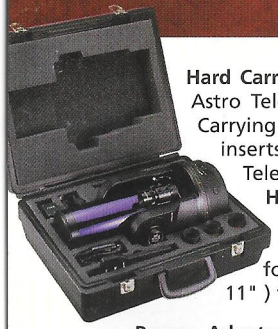
For the casual or beginning observer the Meade ETX-90EC may be all the telescope ever required. Or, for the advanced astronomer who already owns a larger instrument, the ETX-90EC is the perfect ultraportable, diffraction-limited field telescope.

- **Pushbutton Operation.** Control all motions of the telescope with the handheld 4-speed Meade Electronic Controller.
- **Ultra-High-Resolution Imaging.** Observe amazing detail with Meade 90mm Maksutov-Cassegrain optics.
- **Easy Setup and Use.** Ready to use just minutes after opening the box, the ETX-90EC is simple to operate.
- **Compact and Portable.** The ETX-90EC goes anywhere with you at a moment's notice.
- **Photo-Ready Imaging.** Connect your 35mm camera body to the ETX-90EC for terrestrial or astrophotography. Requires the optional Meade #64 T-Adapter and T-Mount for your camera.
- **Autostar Compatible.** Accepts the optional Meade #497 Autostar Computer Controller for automatic location of over 32,000 celestial objects at the push of a button.

SPECIFICATIONS

SPECIFICATIONS: ETX-90EC Astro Telescope — Includes Maksutov-Cassegrain optical tube assembly (D = 90mm, F = 1250mm, f/13.8) with EMC multi-coatings; internal flip-mirror system for either straight-through or 90° observing position; fork mount with electric slow-motion controls, setting circles and locks on both axes; electronic control panel; 4-speed (8x, 32x. 0.75°/sec, 5°/sec) dual-axis motor drive system with electronic hand controller; internal battery compartment accepting eight (user-supplied) AA-size batteries; 8 x 21 erect-image viewfinder; Series 4000 Super Plössl 26mm (48X) eyepiece; operating instructions.

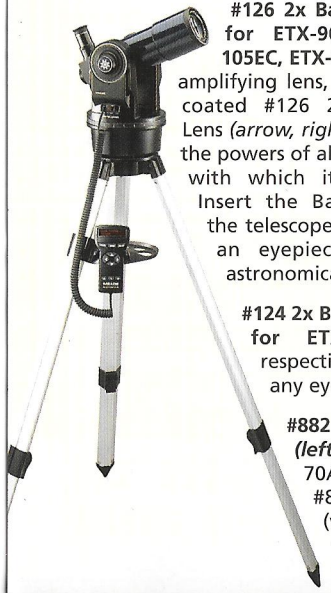
Optional Accessories for Meade® ETX-70AT, ETX-90EC, ETX-105EC, and ETX-125EC Astro Telescopes



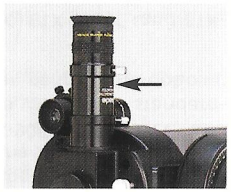
Hard Carrying Cases: For secure portability of ETX Astro Telescope models in the field, Meade Hard Carrying Cases are fully lined with fitted foam inserts and accept the complete ETX Astro Telescopes, plus optional accessories. **#773 Hard Case** (19" x 15" x 9") for ETX-70AT; **#774 Hard Case** (19" x 14" x 7") for ETX-90EC; **#776 Hard Case** (20" x 16.5" x 9.5") for ETX-105EC; **#775 Hard Case** (23" x 15" x 11") for ETX-125EC.

Power Adapters and Cords: In addition to their internal battery packs ETX-70AT, ETX-90EC, ETX-105EC, and ETX-125EC telescopes may be powered from standard 115v.AC home electricity. The ETX-70AT utilises the **#546 AC Adapter;** ETX-90EC, ETX-105EC, and ETX-125EC models may be powered in the field from an automobile cigarette lighter plug by using the **#607 Power Cord** *(above right)*, a 25 ft. cord which plugs into the telescope's control panel and supplies 12v.DC directly from a car battery. The **#607 Power Cord** is included with the **#541 AC Adapter**, which supplies power from any standard 115v.AC home outlet; a 25 ft. cord connects to the telescope's control panel.

Astro Software/Cable Connector Kit: With Meade Astro Software loaded into your PC, an Autostar-equipped ETX telescope may be remotely controlled from the PC display. The Connector Cable Kit, permitting connection of ETX telescope, Autostar, and PC, is included with each Astro Software package. **#506 Astro Software/Cable Connector Kit** for ETX-70AT; **Astro Software/#505 Cable Connector Kit** for ETX-90EC, ETX-105EC, ETX-125EC.

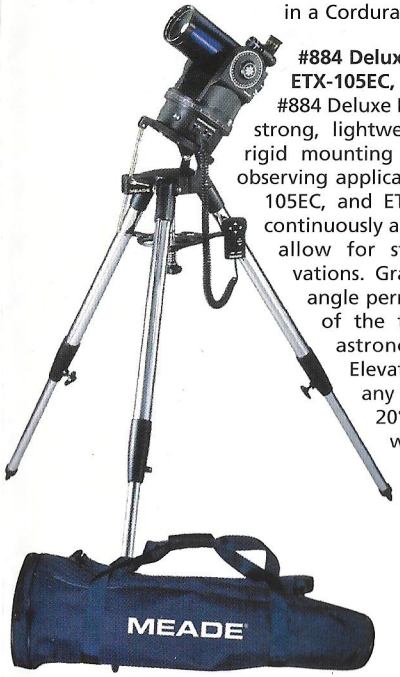


#126 2x Barlow Lens for ETX-90EC, ETX-105EC, ETX-125EC: An amplifying lens, the multi-coated #126 2x Barlow Lens *(arrow, right)* doubles the powers of all eyepieces with which it is used. Insert the Barlow into the telescope's eyepiece holder first, followed by an eyepiece. The #126 is intended for astronomical applications.



#124 2x Barlow Lens and #128 3x Barlow Lens for ETX-70AT: These Barlow lenses respectively double or triple the power of any eyepiece with which they are used.

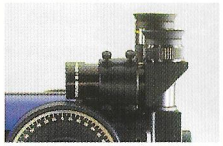
#882 Standard Field Tripod for ETX-70AT *(left)*: Designed exclusively for the ETX-70AT telescope, the stable, aluminum #882 Tripod permits altazimuth (vertical-horizontal) alignment of the telescope and adjusts for standing or seated observations. Included is an accessory shelf to hold eyepieces and the Autostar hand controller. The tripod is packed in a Cordura-type carry bag.



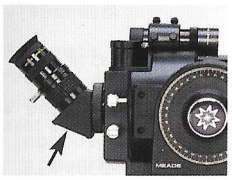
#884 Deluxe Field Tripod for ETX-90EC, ETX-105EC, ETX-125EC: The full-length #884 Deluxe Field Tripod is constructed of strong, lightweight steel, and provides a rigid mounting platform for virtually any observing application for the ETX-90EC, ETX-105EC, and ETX-125EC. Tripod height is continuously adjustable from 25" to 43" to allow for standing or seated observations. Graduated scale for elevation angle permits precise polar alignment of the telescope's fork mount for astronomical applications. Elevation angle can be fixed at any observing latitude between 20° and 90°. For land viewing, where altazimuth orientation of the telescope is desirable, the tripod head tilts and locks to 90°. Net tripod weight is 11 lbs. Includes custom-fitted carry bag with strap, handles and pocket for accessories.

Eyepieces: For higher and lower magnifications Meade Super Plössl and Super Wide Angle Eyepieces yield extremely high-resolution imaging with all ETX models. A useful selection might include the SP9.7mm, SP12.4mm, and SWA18mm. Under steady astronomical seeing conditions, Meade Ultra Wide Angle 4.7mm and 6.7mm eyepieces present the widest obtainable fields of view at high powers and are well-suited for observing the Moon and planets.

#825 and #827 8 x 25mm Right-Angle Viewfinders: Included as standard-equipment on the ETX-105EC and ETX-125EC, the #825 8 x 25mm Right-Angle Viewfinder permits a 90° viewing position with the ETX-90EC as well. The #825 fits into the same bracket as the 8 x 21mm finder supplied with the ETX-90EC telescope. **#825** for ETX-90EC, **#827** for ETX-70AT.



T-Adapter *(right)*: The basic means of photography through all ETX Astro Telescopes, the T-Adapter threads to the rear cell of the telescope, followed by a T-mount appropriate to the user's brand of 35mm camera. In this way the camera body is rigidly coupled to the telescope's optical system, which in effect becomes the camera's lens. **#64 T-Adapter** for ETX-90EC, ETX-105EC, ETX-125EC; **#64ST T-Adapter** for ETX-70AT.



45° Erecting Prisms *(left)*: All ETX models include an internal optical-flat mirror to reflect light to the telescope's 90° astronomical observing position. The result is an image that is upright, but reversed. For terrestrial observing a 45° Erecting Prism results in a fully correctly oriented image and a convenient 45° observing angle. **#932 Erecting Prism** for ETX-90EC, ETX-105EC, ETX-125EC; **#933 Erecting Prism** for ETX-70AT.

Table Tripods *(right)*: ETX-90EC, ETX-105EC, and ETX-125EC Astro Telescope models permit pushbutton tracking of astronomical objects from their standard-equipment Electronic Controllers. For fully automatic tracking, a table tripod, or the #884 Deluxe Field Tripod *(above)*, may be added, allowing for polar alignment of the telescope. Each table tripod includes two fixed legs and two variable-length legs inscribed with a range of latitude settings for quick polar alignment. At observing latitudes below about 25° the optional **#1422 Low-Latitude Balance Weight** *(not shown)* is recommended for the ETX-90EC; the low-latitude balance weight is included with the table tripod for the ETX-105EC and ETX-125EC. **#880 Table Tripod:** for ETX-90EC; **#881 Table Tripod:** for ETX-105EC and ETX-125EC.

Electric Focusers: For smooth, rapid focusing of the image with the ETX-90EC, ETX-105EC, or ETX-125EC, each focuser includes coarse and microfine speeds. The standard-equipment hand controller accepts one (user-supplied) 9-volt battery. Alternately, the focuser plugs into, and is powered by, the telescope's control panel, with operation effected through either the Electronic Controller or Autostar handboxes. **#1244:** for ETX-90EC and ETX-105EC; **#1247:** for ETX-125EC.

#3200 Lunar & Planetary Colour Filter Set for ETX-70AT: Optical glass color filters thread-in to eyepiece barrels and increase image contrast and resolution of the Moon and planets and reduce glare of the full or near-full Moon.

Dew Shields for ETX®: Threads into the front-lens cell and effectively inhibits the formation of dew on the lens surface. **#670** for ETX-70; **#673** for ETX-90; **#675** for ETX-105; **#678** for ETX-125.